```
Sbjct: 898 ctggtactgccagatccagtaccggcccttctttcccctgaccgccactctgggcctggc 957
Query: 758
        cggcttcaccctgctcctcagtctcctggcctttgccatgtaccgcccgtagtgcctccq 817
        Sbjct: 958
        eggetteaccetgetecteagtetectggeetttgceatgtacegeeggtagtgcetecq 1017
       cgggcgcttggcagcgtcgccgggccctccggaccttgctcccgcgccgcggggggagc 877
Query: 818
        Query: 878 tgctgcctgcccaggcctctccggcctgcctcttcccgctgccctggagcccagcc 937
        Sbjct: 1078 tgctgcctgcccaggcccgcctctccggcctgcctcttcccgctgccctggagcccagcc 1137
Query: 938
       etgegeegeagaggaetecegggaetggeggaggeeegeeetgegaeegeeggggeteg 997
        niumuinmananimmanananmanananan
Sbjct: 1138 ctgcgccgcagaggactcccgggactggcggaggccccgccctgcgaccgcggggctcg 1197
Query: 998
       gggccacctcccggggctgctgmcc-tcagcccgcactgggagtgggctcctcggggtcg 1056
        Sbjct: 1198 gggccaceteceggggctgctgacecteagcccgcactgggagtgggctcctcggggtcg 1257
Sbjet: 1258 ggcatetgetgtegetgeeteggeeeegggeagageegggeeegggggeeegtett 1317
Query: 1117 agtgttctgccggaggacccagccgcctccm-tccctgacagctccttgggctgagttgg 1175
       Sbjct: 1318 agtgttctgccggaggacccagccgcctccaatccctgacagctccttgggctgagttgg 1377
Query: 1176 ggacgccaggtcggtgggaggctggtgm-ggggagcgggggggggaggggaggttccccg 1234
       Query: 1235 gm-cccgtgcagattw--gtm-ctgtgm-gttttaaaaaaaaaaaaaaaaa 1281
         animum je mi imemanama
Score = 36.6 bits (18), Expect =
                      125
Identities = 18/18 (100%)
Strand = Plus / Plus
Query: 1264 aaaaaaaaaaaaaaaaa 1281
```

Sbjct: 1477 aaaaaaaaaaaaaaaa 1494

1111111111111111

```
Score = 36.6 bits (18), Expect =
                           125
 Identities = 18/18 (100%)
 Strand = Plus / Plus
Query: 1264 aaaaaaaaaaaaaaaa 1281
         Sbjct: 1476 aaaaaaaaaaaaaaaaa 1493
 Score = 36.6 bits (18), Expect =
                           125
 Identities = 18/18 (100%)
 Strand = Plus / Plus
Query: 1264 aaaaaaaaaaaaaaaa 1281
         Sbjct: 1475 aaaaaaaaaaaaaaaa 1492
                       Homo sapiens chromosome 7 open reading frame 2
>g1|31543199|ref|NM 031434.2|
        Length = \overline{1494}
 Score = 2042 bits (1019), Expect = 0.0
 Identities = 1203/1252 (96%), Gaps = 28/1252 (2%)
 Strand = Plus / Plus
Query: 58
         gctcggtagcgcggcgggcm-ggcaggcgccatgaccctgattgm-ggqqtqqqtqatqa 115
         Sbjct: 238
         Query: 116
         ggtgaccgtccttttctcggtgcttgcctgccttctggtgctggcccttgcctgggtctc 175
         ggtgaccgtccttttctcggtgcttgcctgccttctggtgctggcccttgcctgggtctc 357
Sbjct: 298
         m-cgcacaccgctgagggggggacccactgccccagccgtcagggaccccm-cgccatc 233
Query: 176
          Sbjct: 358
         aacgcacaccgctgagggcggggacccactgccccagccgtcagggaccccaacqccatc 417
Query: 234
         ccagcccagcgcagccatggcagctaccgacagcatgagaggggaggccccaggggcaga 293
         Sbjct: 418
         ccagcccagcgcatggcagctaccgacagcatgagaggggaggccccaggggcaga 477
Query: 294
         gacccccagcctgagacacagaggtcm-gctgcacagccagagcccagcacggggttcac 352
         Sbjct: 478
         gacecceagectgagacacagaggtcaagetgcacagecagageccageacggggttcae 537
         agcm-caccgccagcccggactccccgcaggagcccctcgtgctacggctgw--ttcct 409
Query: 353
         Sbjct: 538
        agcaacaccgccagcccggactccccgcaggagcccctcgtgctacggctgaaattcct 597
```

Query:	410	cm-tgattcagagcaggtggccagggcctggccccacgacaccattggctccttgg	464
Sbjct:	598	caatgattcagagcaggtggccagggcctggccccacgacaccattggctccttgaaaag	657
Query:	465	gacccagtttcccggccgggm-cagcaggtgcgactcatctaccm-gggcagctgctagg	522
Sbjct:	658	gacccagtttcccggccgggaacagcaggtgcgactcatctaccaagggcagctgctagg	717
Query:	523	cgacgacacccagaccctgggcagccttcacctccctccc	581
Sbjct:	718		777
Query:	582	cgtgtccacgagagtcggtcccccwtcccccctgcccggcgggtccgagcccggccc	639
Sbjat:	778		837
Query:	640	ctccgggctggwtcggcagcctgctgctgcccctgctgctcctgctgttgctgct	697
Sbjct:	838		897
Query:	698	ctggtactgccagatccagtaccggcccttctttcccctgaccgccactctgggcctggc	757
Sbjct:	898		957
Query:	758	cggcttcaccctgctcctcagtctcctggcctttgccatgtaccgcccgtagtgcctccg	817
Sbjct:	958		1017
Query:			877
Sbjct:	1018		1077
Query:	878	tgctgcctgcccaggcccgcctctccggcctgcctcttcccgctgccctggagcccagcc	937
Sbjct:	1078	tgetgeetgeeeaggeecgeeteteeggeetgeetetteeegetgeeetggageeeagee	1137
Query:	938	ctgcgccgcagaggactcccgggactggcggaggccccgccctgcgaccgccggggctcg	997
Sbjct:	1138	ctgcgccgcagaggactccgggactggcggaggcccgccgggggctcg	1197
Query:	998	gggccacctcccggggctgctgmcc-tcagcccgcactgggagtgggctcctcgggggtcg	1056
		gggecaceteeeggggetgetgaeeeteageeegeaetgggagtgggeteeteggggteg	
		ggcatctgctgtcgctgcctcggccccgggcagagccgggccgcccgggggcccgtctt	
Sbjct:	1258	ggcatctgctgtcgctcggccccgggcagagccgggccgcccgggggcccgtctt	1317

```
Query: 1117 agtgttctgccggaggacccagccgcctccm-tccctgacagctccttgggctgagttgg 1175
         Sbjct: 1318 agtgttctgccggaggacccagccgcctccaatccctgacagctccttgggctgagttqg 1377
Query: 1176 ggacgccaggtcggtgggaggctggtgm-ggggagcggggggggggagagggttccccg 1234
         Query: 1235 gm-cccgtgcagattw--gtm-ctgtgm-gttttaaaaaaaaaaaaaaaaa 1281
           - Midduu - ir and and andanaana
Score = 36.6 bits (18), Expect =
                           125
 Identities = 18/18 (100\%)
 Strand = Plus / Plus
Query: 1264 aaaaaaaaaaaaaaaa 1281
         Sbjct: 1477 aaaaaaaaaaaaaaaa 1494
 Score = 36.6 bits (18), Expect =
                           125
 Identities = 18/18 (100%)
 Strand = Plus / Plus
Query: 1264 aaaaaaaaaaaaaaaa 1281
         Sbjct: 1476 aaaaaaaaaaaaaaaa 1493
Score = 36.6 bits (18), Expect =
Identities = 18/18 (100%)
Strand = Plus / Plus
Query: 1264 aaaaaaaaaaaaaaaa 1281
         Sbjct: 1475 aaaaaaaaaaaaaaaa 1492
                     Homo sapiens BAC clone RP11-148K1 from 7, complete s
>qi|16756334|qb|AC010973.6|
       Length = 222605
Score = 1395 \text{ bits } (696), \text{ Expect = } 0.0
Identities = 775/796 (97%), Gaps = 11/796 (1%)
Strand = Plus / Plus
Query: 464
          ggacccagtttcccggccggg-mcagcaggtgcgactcatctacc-mgggcagctgctag 521
          Sbjct: 123794 ggacccagtttcccggccgggaacagcaggtgcgactcatclaccaagggcagctgctag 123853
```

Query:	522	gcgacgacacccagaccctgggcagccttcacctcccctccc-mctgcgttctccactgcc	580
Sbjct:	123854		123913
Query:	581	acgtgtccacgagagtcggtccccwtcccccctgcccgccggggtccgagcccggcc	638
Sbjct:	123914	acgtgtccacgagagtcggtccccaaatccccctgcccgecggggtccgagcccggcc	123973
Query:	639	cctccgggctggwtcggcagcctgctgctgcccctgctgctcctgctgttgctgctgc	696
Sbjct:	123974	cctccgggctggaaatcggcagcctgctgctgcccctgctgctcctgctgttgctgc	124033
Query:	697	tetggtactgccagatccagtaccggcccttctttcccctgaccgccactctgggcctgg	756
Sbjct:	124034	tetggtactgccagatccagtaccggccettettteccetgaccgccactetgggcctgg	124093
Query:	757	ccggcttcaccctgctcctcagtctcctggcctttgccatgtaccgcccgtagtgcctcc	816
Sbjct:	124094	ccggcttcaccctgctcctcagtctcctggcctttgccatgtaccgcccgtagtgcctcc	124153
Query:	817	gcgggcgcttggcagcgtcgccggcccctccggaccttgctccccgcgccgcggggag	876
Sbjct:	1241.54	gcgggcgcttggcagcgtcgccgccgccgcggaccttgctccccgcgccgcgggag	124213
Query:	877	ctgctgcctgcccaggcccgcctctccggcctgcctcttcccgctgccctggagcccagc	936
Sbjct:	124214	ctgctgcctgcccaggcctgcctctccggcctgccctggagcccagc	124273
Query:	937	cctgcgccgcagaggactcccgggactggcggaggcccgcctgcgaccgccggggctc	996
Sbjct:	124274	cctgcgccgcagaggactcccgggactgqcggaggccccgccctgcgaccgccggggctc	124333
Query:	997	ggggccacctcccggggctgctg-mcctcagcccgcactgggagtgggctcctcggggtc	1055
Sbjct:	124334	ggggccacctcccggggctgctgaccctcagcccgcactgggagtgggctcctcggggtc	124393
Query:	1056	gggcatctgctgtcgctgcctcggccccgggcagagccggccg	1115
Sbjct:		gggcatctgctgtcgctgcctcggccccgggcagagccggcccccggggcccgtct	
Query:		tagtgttctgccggaggacccagccgcctcc-mtccctgacagctccttgggctgagttg	
		tagtgttctgccggaggacccagccgcctccaatccctgacagctccttgggctgagttg	
Query:		gggacgccaggtcggtgggaggctggtg-mggggagcgggggggggggaggggaggttcccc	
Sbjct:	124514	gggacgccaggtcggtggaggctggtgaaggggagcgggggggg	124573

```
Query: 1234
          gg-mcccgtgcagatt 1248
          Sbjct: 124574 ggaacccgtgcagatt 124589
 Score = 665 bits (332), Expect = 0.0
 Identities = 398/415 (95%), Gaps = 9/415 (2%)
 Strand = Plus / Plus
          gctcggtagcgcggcgm-ggcaggcgccatgaccctgattgm-ggggtggtgatga 115
Query: 58
          ggtgaccgtccttttctcggtgcttgcctgccttctggtgctggcccttgcctgggtctc 175
Query: 116
          Sbjct: 123161 ggtgaccgtccttttctcggtgcttgcctgccttctggtgcttgcctggcccttgcctgggtctc 123220
Query: 176
          m-cgcacaccgctgagggcggggacccactgccccagccgtcagggaccccm-cgccatc 233
            Sbjct: 123221 aacgcacaccgctgagggcggggacccactgccccagccgtcagggaccccaacgccatc 123280
          ccagcccagcgcagccatggcagctaccgacagcatgagaggggaggccccaggggcaga 293
Query: 234
          Sbjct: 123281 ccagcccagcgcagccatggcagctaccgacagcatgagaggggaggccccaggggcaga 123340
          qacccccaqcctgaqacacagaggtc-mgctgcacagccagagcccagcacggggttcac 352
Query: 294
          Sbjct: 123341 gacccccagcctgagacacagaggtcaagctgcacagccagagcccagcacggggttcac 123400
Query: 353
          age-meacegecageceggaeteceegeaggageceetegtgetaeggetg--wtteet 409
          Sbjct: 123401 agcaacaccgccagcccggactccccgcaggagcccctcgtgctacggctgaaattcct 123460
Query: 410
          c-mtgattcagagcaggtggccagggcctggcccacgacaccattggctccttg 463
           Sbjct: 123461 caatgattcagagcaggtggccagggcctggcccacgacaccattggctccttg 123515
Score = 80.7 bits (40), Expect = 7e-12
Identities = 48/50 (96%), Gaps = 1/50 (2%)
Strand = Plus / Plus
Query: 10
          cccgcccggm-gtgcccgaggggccgcgatggagctgggggagccgggcg 58
          Sbjct: 122212 cccgcccggaagtgcccgaggggccgcgatggagctgggggagccggggg 122261
```

```
Score = 42.6 bits (21), Expect = 1.9
 Identities = 21/21 (100%)
 Strand = Plus / Plus
             tttaaaaaaaaaaaaaa 1281
Query: 1261
             Sbjct: 115287 tttaaaaaaaaaaaaaaa 115307
 Score = 38.6 bits (19), Expect =
 Identities = 22/23 (95%)
 Strand = Plus / Plus
Query: 1259
             gttttaaaaaaaaaaaaaa 1281
             Sbjct: 115286 gtttaaaaaaaaaaaaaaaaa 115308
 Score = 36.6 bits (18), Expect = 125
 Identities = 18/18 (100%)
 Strand = Plus / Minus
Query: 1264
            aaaaaaaaaaaaaaa 1281
             Sbjct: 218391 aaaaaaaaaaaaaaaa 218374
 Score = 36.6 bits (18), Expect =
 Identities = 18/18 (100%)
 Strand = Plus / Minus
Query: 1264
            aaaaaaaaaaaaaa 1281
            Sbjct: 218390 aaaaaaaaaaaaaaaaa 218373
 Score = 36.6 bits (18), Expect = 125
 Identities = 18/18 (100%)
 Strand = Plus / Minus
Query: 1264
            aaaaaaaaaaaaaaa 1281
            1111111111111111
Sbjct: 218389 aaaaaaaaaaaaaaaa 218372
Score = 36.6 bits (18), Expect =
                                125
Identities = 18/18 (100\%)
Strand = Plus / Minus
```

```
Query: 1264
             aaaaaaaaaaaaaaa 1281
             Sbjct: 136554 aaaaaaaaaaaaaaaaa 136537
 Score = 36.6 bits (18), Expect = 125
 Identities = 18/18 (100%)
 Strand = Plus / Minus
Query: 1264
             aaaaaaaaaaaaaaa 1281
             Sbjct: 136553 aaaaaaaaaaaaaaaaa 136536
 Score = 36.6 bits (18), Expect = 125
 Identities = 18/18 (100%)
 Strand = Plus / Plus
Query: 1264
             aaaaaaaaaaaaaa 1281
             Sbjct: 115297 aaaaaaaaaaaaaaaaaa 115314
 Score = 36.6 bits (18), Expect =
                               125
 Identities = 18/18 (100%)
 Strand - Plus / Plus
Query: 1264
            aaaaaaaaaaaaaaaa 1281
             11:11:11:11:11
Sbjct: 115296 aaaaaaaaaaaaaaaa 115313
 Score = 36.6 bits (18), Expect = 125
 Identities = 18/18 (100%)
 Strand = Plus / Plus
Query: 1264
            aaaaaaaaaaaaaaaa 1281
            Sbjct: 115295 aaaaaaaaaaaaaaaaa 115312
Score = 36.6 bits (18), Expect = 125
Identities = 18/18 (100%)
Strand = Plus / Plus
Query: 1264
            aaaaaaaaaaaaaaaa 1281
            1111111111111111
Sbjct: 115294 aaaaaaaaaaaaaaaaa 115311
```

```
Score = 36.6 bits (18), Expect = 125
 Identities = 18/18 (100%)
 Strand = Plus / Plus
Query: 1264
            aaaaaaaaaaaaaaa 1281
             Sbjct: 115293 aaaaaaaaaaaaaaaaa 115310
 Score = 36.6 bits (18), Expect = 125
 Identities = 18/18 (100%)
 Strand = Plus / Plus
Query: 1264
            aaaaaaaaaaaaaaa 1281
            Sbjct: 115292 aaaaaaaaaaaaaaaaa 115309
 Score = 36.6 bits (18), Expect = 125
 Identities = 18/18 (100%)
 Strand = Plus / Minus
Query: 1264
            aaaaaaaaaaaaaaaa 1281
            Sbjct: 109993 aaaaaaaaaaaaaaaa 109976
 Score = 36.6 bits (18), Expect = 125
 Identities = 18/18 (100%)
 Strand = Plus / Minus
Query: 1264
            aaaaaaaaaaaaaaa 1281
            Sbjct: 109992 aaaaaaaaaaaaaaaaa 109975
Score = 36.6 \text{ bits } (18), \text{ Expect} = 125
 Identities = 18/18 (100%)
Strand = Plus / Minus
Query: 1264
            aaaaaaaaaaaaaa 1281
            Sbjct: 109991 aaaaaaaaaaaaaaaa 109974
Score = 36.6 bits (18), Expect = 125
Identities = 18/18 (100%)
Strand = Plus / Minus
```

```
Query: 1264
             aaaaaaaaaaaaaa 1281
             Sbjct: 109990 aaaaaaaaaaaaaaaa 109973
 Score = 36.6 bits (18), Expect = 125
 Identities = 18/18 (100%)
 Strand = Plus / Minus
Query: 1264
            aaaaaaaaaaaaaaaa 1281
            Sbjct: 109989 aaaaaaaaaaaaaaaaa 109972
 Score = 36.6 bits (18), Expect = 125
 Identities = 18/18 (100%)
 Strand = Plus / Minus
Query: 1264
            aaaaaaaaaaaaaaa 1281
            Sbjct: 109988 aaaaaaaaaaaaaaaa 109971
 Score = 36.6 bits (18), Expect = 125
 Identities = 18/18 (100%)
 Strand = Plus / Minus
Query: 1264
            aaaaaaaaaaaaaaa 1281
            Sbjct: 109987 aaaaaaaaaaaaaaaa 109970
 Score = 36.6 bits (18), Expect = 125
 Identities = 18/18 (100%)
 Strand = Plus / Minus
Query: 1264
            aaaaaaaaaaaaaaaaa 1281
            Sbjct: 109986 aaaaaaaaaaaaaaaa 109969
Score = 36.6 bits (18), Expect =
Identities = 18/18 (100%)
Strand = Plus / Minus
Query: 1264
            aaaaaaaaaaaaaaaa 1281
            Sbjct: 109985 aaaaaaaaaaaaaaaa 109968
```



# results of NIAST

#### BLASTN 2.2.8 [Jan-05-2004]

#### Reference:

Altschul, Stephen F., Thomas L. Madden, Alejandro A. Schäffer, Jinghui Zhang, Zheng Zhang, Webb Miller, and David J. Lipman (1997), "Gapped BLAST and PSI-BLAST: a new generation of protein database search programs", Nucleic Acids Res. 25:3389-3402.

RID: 1079554228-18277-13018448633.BLASTQ3

Query=

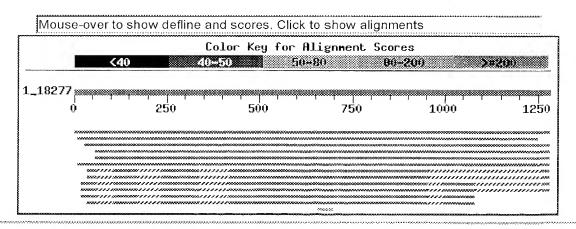
(1281 letters)

Database: All GenBank+EMBL+DDBJ+PDB sequences (but no EST, STS, GSS, or phase 0, 1 or 2 HTGS sequences)
2,102,977 sequences; 10,130,642,339 total letters

If you have any problems or questions with the results of this search please refer to the  ${\tt BLAST\ FAQs}$ 

Taxonomy reports

## Distribution of 3783 Blast Hits on the Query Sequence



Sequences producing significant alignments:	Score (bits)	E Value	
<u>gi 37182084 gb AY358481.1 </u> Homo sapiens clone DNA73744 TLIE	2146	0.0	
gi 12654232 gb BC000936.1  Homo sapiens chromosome 7 open r	2112	0.0	
gi[21303410]qb[AY037155.1] Homo sapiens hypothetical membra	2102	0.0	
gi 21620057 gb BC033182.1  Homo sapiens chromosome 7 open r	2042	0.0	
gi 31543199 ref NM_031434.2  Homo sapiens chromosome 7 open	2042	0.0	

gi 16756334 qb AC010973.6  Homo sapiens BAC clone RP11-148K	1395	0.0	
gi[37589845]gb[BC059162.1] Rattus norvegicus Unknown (prote	509	e-141	
gi 38454297 ref NM 198781.1  Rattus norvegicus Unknown (pro	509	e-141	
gi 18043423 qb BC019547.1  Mus musculus RIKEN cDNA 20100040	463	e-127	
gi 12842087 dbj AK008109.1  Mus musculus adult male small i	463	e-127	
gi 7259235 dbj AB030183.1  Mus musculus mRNA, complete cds,	<u>463</u>	e-127	
<u>qi 11967944 ref NM 022418.1 </u> Mus musculus RIKEN cDNA 201000	<u>4.63</u>	e-127	
gi 2961613 gb AF051726.1 MMCATS1 Mus musculus cathepsin S ( gi 18873502 emb AL603702.14  Mouse DNA sequence from clone	63	2e-06	
gi 21953265 emb AL591913.14  Mouse DNA sequence from clone	<u>63</u> 63	2e-06 2e-06	
gi 25013379 gb AC092203.16  Mus musculus chromosome 3 clone	61	7e-06	
<u>gi 20068539 emb AL606742.11 </u> Mouse DNA sequence from clone	61	7e-06	387888
gi 22832231 qb AE003496.3  Drosophila melanogaster chromoso	<u>59</u>	3e-05	
gi 23172508 gb AE003766.2  Drosophila melanogaster chromoso gi 15451484 gb AC022346.3  Drosophila melanogaster, chromos	<u>59</u> 59	3e-05 3e-05	***
g1 14028963 gb AC022343.2 AC022343 Drosophila melanogaster,	<u> 59</u>	3e-05	
gi 13676919 gb AC007827.5 AC007827 Drosophila melanogaster,	<u>59</u>	3e-05	
gi 25455625 gb BC040122.1  Homo sapiens paired immunoglobin	<u> 57</u>	1e-04	
gi 29791641 qb BC050547.1  Homo sapiens paired immunoglobin	57	1e-04	
gi 37361058 qb AC107662.9  Mus musculus chromosome 9, clone	<u> 57</u>	1e-04	85'988 0700000000
gi 16551810 dbj AK056412.1  Homo sapiens cDNA FLJ31850 fis, gi 20800363 gb AC025627.13  Homo sapiens chromosome 17, clo	<u>57</u> 57	1e-04 1e-04	
gi 28201706 qb AC004448.3  Homo sapiens chromosome 17, clon	<u>57</u>	1e-04	
gi 5817856 gb AF161081.1 AF161081 Homo sapiens activating r	57	1e-04	
gi 4508112 qb AC005071.2 AC005071 Homo sapiens clone RG161A	57	1e-04	
$\frac{gi 10441892 qb AF217981.1 AF217981}{gi 6706622 emb AJ279565.1 HSA279565}  \text{Homo sapiens genomic DN}$	<u>57</u> 57	1e-04 1e-04	
gi 21739966 emb AL834336.1 HSM805391 Homo sapiens mRNA; cDN	57	1e-04	
gi 21739928 emb AL834317.1 HSM805361 Homo sapiens mRNA; cDN	57	1e-04	
gi 11932154 emb AJ400846.1 HSA400846 Homo sapiens mRNA for	<u> 57</u>	10-04	
gi 11932151 emb AJ400845.1 HSA400845 Homo sapiens mRNA for	<u>57</u>		
gi 206982 gb M32515.1 RATSIMPB Rat simple sequence DNA, clo gi 206979 gb M36626.1 RATSIMPA1 Rat simple sequence DNA, cl	<u>57</u> <u>57</u>	1e-04 1e-04	
gi 30179910 ref NM 178238.1  Homo sapiens paired immunoglob	57	1e-04	
gi 30179914 ref[NM 013440.3] Homo sapiens paired immunoglob	57	1e-04	
gi 30179912 ref NM 175047.2  Homo sapiens paired immunoglob	<u> 57</u>	1e-04	
gi 38564373 gb AC113203.10  Mus musculus chromosome 5, clon	<u>55</u>	5e-04	
<u>gi 33147431 qb AC127256.4 </u> Mus musculus BAC clone RP24-296G <u>gi 18043222 qb BC020026.1 </u> Mus musculus cell division cycle	<u>55</u>	5e-04 5e-04	
<u>gi 22213506 gb AC122857.2 </u> Mus musculus BAC clone RP23-125A	<u>55</u> 55	5e-04	86608 (111111111111111111111111111111111111
<u>gi 22138609 gb AC121903.2 </u> Mus musculus BAC clone RP24-174G	5.5	5e-04	
<u>qi 37951419 gb AC110240.8 </u> Mus musculus chromosome 3, clone <u>gi 32421368 ref XM 331127.1 </u> Neurospora crassa strain OR74A	<u> 55</u> <u>55</u>	5e-04 5e-04	
gi 7656273 gb AC067939.1 AC067939 Neurospora crassa chromos	55	5e-04	
<u>qi 20068407 emb AL358472.54 </u> Human DNA sequence from clone	<u>55</u>	5e-04	<b>2002</b> (1000)
gi 6715147 gb AF188622.1 AF188622 Mus musculus selectively gi 42656116 ref XM 375806.1  Homo sapiens KIAA0476 gene pro	<u>55</u>	5e-04 5e-04	
gi 32436422 emb AL935159.11  Mouse DNA sequence from clone	<u> 55</u> <u>55</u>	5e-04 5e-04	
gi 10946743 ref NM 021398.1  Mus musculus solute carrier fa	<u>55</u>	5e-04	
gi 41351569 gb AC110219.11  Mus musculus chromosome 1, clon	5.5	5e-04	
g1 40557568 gb AY489267.1  Pinus sylvestris microsatellite	<u>55</u>	5e-04	

gi 21614629 emb AL672218.9  Mouse DNA sequence from clone R gi 38050 emb X68361.1 MFAPOA4A M.fascicularis gene for apol	_ <u>55</u> 55	5e-04 5e-04	
g1 307289 gb L10375.1 HUMMRNAD       Human (clone CTG-B10) mRNA s         g1 34576915 gb AY368204.1        Homo sapiens TATA box binding pr         g1 33439371 gb AY333202.1        Anopheles merus clone r2a micros         g1 33439365 gb AY333195.1        Anopheles gambiae clone b2bc mic         g1 33439363 gb AY333194.1        Anopheles gambiae clone b1bc mic         g1 33439362 gb AY333193.1        Anopheles gambiae clone b1a micr         g1 33439361 gb AY333192.1        Anopheles gambiae clone s2ab mic         g1 33439360 gb AY333191.1        Anopheles gambiae clone s1ab mic	55 53 53 53 53 53 53 53 53	0.002 0.002 0.002 0.002 0.002 0.002 0.002	
qi 14318643 gb BC009120.1        Mus musculus hypothetical protei         qi 23124364 gb AC093043.6        Mus Musculus Strain C57BL6/J Chr         qi 29423846 gb AC137055.12        Homo sapiens 12 BAC RP11-686G8         qi 29336195 qb AC040162.5        Homo sapiens chromosome 16 clone         qi 21166215 qb AC112516.2        Homo sapiens chromosome 3 clone	53 53 53 53 53	0.002 <b>3</b> 0.002 0.002 0.002 0.002	
gi 23171590 gb AE003720.3  Drosophila melanogaster chromoso gi 23170582 gb AE003672.3  Drosophila melanogaster chromoso	<u>53</u> 53	0.002	
gi 23093570 gb AE003540.3  Drosophila melanogaster chromoso	53	0.002	
gj 22946710 gb AE003655.3  Drosophila melanogaster chromoso	53	0.002	
gi 26082580 dbj AK031890.1  Mus musculus adult male medulla gi 20502825 qb AF465543.1  Eimeria maxima cGMP-dependent pr	<u>53</u> 53		ones
gi 41529763 emb BX000463.18 Zebrafish DNA sequence from clgi 19860514 gb AF367096.1 Pinus taeda microsatellite RPTesgi 19880513 gb AF367095.1 Pinus taeda microsatellite RPTesgi 19880512 gb AF367094.1 Pinus taeda microsatellite RPTes	53 53 53 53	0.002 0.002 0.002 0.002	
gi 19880509 gb AF367091.1  Pinus taeda microsatellite RPTes gi 17571384 ref NG 000060.1  Drosophila melanogaster (sas) gi 27151411 gb AC079245.35  Mus musculus chromosome 9 clone gi 17028068 gb L47972.1 PIGTEBP Sus scrofa TATA box-binding	53 53 53	0.002 0.002 0.002 0.002	
gi 15529033 gb AY044869.1  Homo sapiens p400 SWI2/SNF2-rela	53	0.002	
gi 15451514 qb AC009462.6 Drosophila melanogaster, chromosgi 15412432 qb AC091223.2 Drosophila melanogaster 3L BAC R	<u> 53</u> <u> 53</u>	0.002	
<u>gi 15292268 gb AY051979.1 </u> Drosophila melanogaster LD44801	53	0.002	
<u>g1[15278192]gb[AF401656.1]AF401656</u> Homo sapiens MAGI-1C bet	<u> 53</u>	0.002	
gi 15278185 gb AF401655.1 AF401655 Homo sapiens MAGI-1A mRN	53	0.002	
<u>gi 15278181 gb AF401654.1 AF401654</u> Homo sapiens MAGI-1B alp <u>gi 42521348 qb AY528423.1 </u> Homo sapiens TATA box binding pr	<u>53</u> 53	0.002	
$\frac{\text{gi} 13702787 \text{gb} \text{AC010121.7} \text{AC010121}}{\text{gi} 30911038 \text{emb} \text{AL929138.15} }  \text{Mouse DNA sequence from clone} \dots$	<u>53</u> <u>53</u>	0.002	
g1 25058366 gb BC040029.1  Homo sapiens, clone IMAGE:575230	<u>53</u>	0.002	
<u>gi 22022302 dbj AB030728.1 </u> Mus musculus gene for non-mitoc <u>gi 37958289 gb AY225906.1 </u> Neurospora sp. FGSC 8847 microsa	<u>53</u>	0.002 <b>2</b>	
gi 40354196 ref NM 020457.2  Homo sapiens THAP domain conta	53	0.002	***

### Alignments

## Get selected sequences Select all Deselect all

 Score = 2146 bits (1071), Expect = 0.0 Identities = 1260/1310 (96%), Gaps = 29/1310 (2%) Strand = Plus / Plus

Query: Sbjct:	cggctcgagcccgcccgg-mgtgcccgaggggccgcgatggagctgggggagccggggcgc 	
Query: Sbjct:	tcggtagcgcgggc-mggcaggcgccatgaccctgattg-mggggtgggtgatgagg 	
Query: Sbjct:	$tgaccgtccttttctcggtgcttgcctgccttctggtgctcggcccttgcctgggtctc-m \\                                    $	
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Query: Sbjct:	agcccagcgcagccatggcagctaccgacagcatgagaggggaggccccaggggcagaga	295 300
Query: Sbjct:	cccccagcctgagacacagaggtc-mgctgcacagccagagcccagcacggggttcacag	
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Query: Sbjct:	mtgattcagagcaggtggccagggcctggcccacgacaccattggctccttggga	466 480
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Query: Sbjct:	acgacacccagaccctgggcagccttcacctccctccc-mctgcgttctccactgccacg	583 600
Query: Sbjct:	tgtccacgagagtcggtccccwtccccctgcccgccggggtccgagcccggccct	

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Query: 700
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       gcttcaccctgctcctcagtctcctggcctttgccatgtaccgcccgtagtgcctccgcg 819
Query: 760
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Query: 820
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Query: 940
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Query: 1236 mcccgtgcagatt--wgt-mctgtg-mgttttaaaaaaaaaaaaaaaaa 1281
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 $<sup>||\</sup>cdot|| > gi | | 12654232 | | gb | | BC000936.1 |$  Homo sapiens chromosome 7 open reading frame 2 MGC:5442 IMAGE:3449979), complete cds Length = 1347

Score = 2112 bits (1054), Expect = 0.0 Identities = 1220/1264 (96%), Gaps = 25/1264 (1%) Strand = Plus / Plus

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Query: Sbjct:	cggcgggcm-ggcaggcgccatgaccctgattgm-ggggtgggtgatgaggtgaccgtcc	
Query: Sbjct:	ttttctcggtgcttgcctgccttctggtgctggcccttgcctgggtctcm-cgcacaccg	
Query: Sbjct:	ctgagggggggacccactgccccagccgtcagggaccccm-cgccatcccagcccagcg	244 290
Query: Sbjct:	cagecatggeagetacegaeageatgagagggaggeeccaggggeagagaeecccagee	304 350
Query: Sbjct:	tgagacacagaggtcm-gctgcacagccagagcccagcacggggttcacagcm-caccgc	
Query: Sbjct:	cagecceggacteccegeaggageceetegtgetaeggetgwtteetem-tgatleag	419 470
Query: Sbjct:	agcaggtggccagggcctggcccacgacaccattggctccttgggacccagtttc 	475 530
Query: Sbjct:	ccggccgggm-cagcaggtgcgactcatctaccm-gggcagctgctaggcgacgacaccc	
Query: Sbjct:	agaccctgggcagccttcacctccctcccm-ctgcgttctccactgccacgtgtccacga	
Query: Sbjct:	gagtcggtcccccwtcccccctgcccgccggggtccgagcccggcccctccgggctgg 	650 710

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Query: 651 w--teggeageetgetgetgeeetgetgeteetgetgttgetgetgeteetggtactgee 708
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Query: 1068 tegetgeeteggeeeegggeagageeggeeegggggeeegtettagtgttetqee 1127
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Query: 1187 cggtgggaggctggtg-mggggagcggggaggggcagagggttccccgg-mcccgtgca 1244
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Query: 1245 gatt 1248
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Complete cds
Length = 1332

Sbjct: 1311 gatt 1314

Score = 2102 bits (1049), Expect = 0.0Identities = 1233/1282 (96%), Gaps = 28/1282 (2%) Strand = Plus / Plus Query: 28 ggggccgcgatggagctggggagccgggcgctcggtagcgggggggm-ggcaggcgc 86 Sbjct: 51 catgaccctgattgm-ggggtgggtgatgaggtgaccgtccttttctcggtgcttgcctg 145 Query: 87 catgaccctgattgaaggggtggtgatgaggtgaccgtccttttctcggtgcttgcctg 170 Sbjct: 111 cottotgqtqctqqccettqcctqqqtctcm-cqcacaccqctqaqqqcqqqqqcccact 204 Query: 146 cettetqqtqctqqccettqcctqqqtctcaacqcacaccqctqagqqcqqqqqacccact 230 Sbjct: 171 gccccagccgtcagggaccccm-cgccatcccagcccagcgcagccatggcagctaccga 263 Query: 205 Sbjct: 231 Query: 264 cagcatgagaggggaggccccaggggcagagacccccagcctgagacacagaggtcm-gc 322 cagcatgagaggggaggcccaggggcagagaccccagcctgagacacagaggtcaagc 350 Sbjct: 291 Query: 323 tgcacagccagagcccagcacggggttcacagcm-caccgccagccccggactccccgca 381 Sbjct: 351 tgcacagccagagcccagcacggggttcacagcaacaccgccagccccggactccccgca 410 Query: 382 ggagcccctcgtgctacggctgw--ttcctcm-tgattcagagcaggtggccagggcctq 438 Sbjct: 411 ggagcccctcgtgctacggctgaaattcctcaatgattcagagcaggtggccagggcctg 470 gccccacgacaccattggctccttg----ggacccagtttcccggccgggm-cagcaggt 493 Query: 439 Sbjct: 471 gcgactcatctaccm-gggcagctgctaggcgacgacacccagaccctgggcagccttca 552 Query: 494 Sbjct: 531 gegacteatetaceaagggeagetgetaggegaegaeaceeagaecetgggeageettea 590 Query: 553 cctccctcccm-ctgcgttctccactgccacgtgtccacgagagtcggtcccccw--tcc 609 cctccctcccaactgcgttctccactgccacgtgtccacgagagtcggtcccccaaatcc 650 Sbjct: 591 cccctgcccgccggggtccgagcccggcccctccgggctggw--tcggcagcctgctgct 667 Query: 610 Sbjct: 651 cccctgcccgccggggtccgagcccggcccctccgggctggaaatcggcagcctgctgct 710

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geceetgetgeteetgetgttgetgetetggtactgccagatccagtaccggccctt 727
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        Sbjet: 1131 cagageegggeegeeeggggeeegtettagtgttetgeeggaggaeeeageegeetee 1190
Query: 1147 m-tccctgacagctccttgggctgagttggggacgccaggtcggtggtgggaggctggtgm-g 1204
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        Sbjct: 1251 gggageggggaggggeagaggagtteecegggaaceegtgeagattaaagtaactgtgaag 1310
Query: 1260 ttttaaaaaaaaaaaaaaaaa 1281
        Sbjct: 1311 ttttcaaaaaaaaaaaaaaa 1332
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Score = 2042 bits (1019), Expect = 0.0 Identities = 1203/1252 (96%), Gaps = 28/1252 (2%) Strand = Plus / Plus

Query: 58 gctcggtagcgcggggcm-ggcaggcgccatgaccctgattgm-ggggtgggtgatga 115 Sbjct: 238 Query: 116 ggtgaccgtccttttctcggtgcttqcctqccttctqqtqctqqcccttqcctqqqtctc 175 Sbjct: 298 ggtgaccqtccttttctcggtqcttqcctqccttctqqtqctqqccttqcctqqqtctc 357 Query: 176 m-cgcacaccgctgagggcggggacccactgccccagccgtcagggaccccm-cgccatc 233 Sbjct: 358 aacgcacaccgctgagggcggggacccactgccccagccgtcagggaccccaacgccatc 417 Query: 234 ccageccagegeagecatggeagetacegacageatgagaggggaggecccaggggcaga 293 Sbjct: 418 ccagcccagcgcagccatggcagctaccgacagcatgagaggggaggccccaggggcaga 477 Query: 294 gacccccagcctgagacacagaggtcm-gctgcacagccaqagcccagcacqqqqttcac 352 Sbjct: 478 gacccccagcctgagacacagaggtcaagctgcacagccagagcccagcacggggttcac 537 Query: 353 agcm-caccgccagccccggactccccgcaggagcccctcgtgctacqgctqw--ttcct 409 Sbjct: 538 agcaacaccgccagccccggactccccgcaggagcccctcgtgctacggctgaaattcct 597 Query: 410 cm-tgattcagagcaggtggccagggcctggcccacgacaccattggctccttq---- q 464 Sbjct: 598 caatgattcagagcaggtggccagggcctggcccacgacaccattggctccttgaaaaq 657 gacccagtttcccggccgggm-cagcaggtgcgactcatctaccm-gggcagctgctagg 522 Query: 465 gacccagtttcccggccgggaacagcaggtgcgactcatctaccaagggcagctgctagg 717 Sbjct: 658 Query: 523 Sbjct: 718 Query: 582 cgtgtccacgagagtcggtcccccw--tcccccctqcccgccqqqqtccqaqcccqqccc 639 Shjct: 778 cgtgtccacgagaglcggtccccaaatccccctgcccgcggggtccgagcccggccc 837 Query: 640 ctccgggctggw--tcggcagectgctgctgctcctgctgctgctgctgctgct 697 Sbjet: 838 ctccgggetggaaatcggcagcctgctgctgctcctgctgctgctgctgctgct 897